

Product Evaluation

SHU63 | 1120

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SHU-63

Effective Date: November 1, 2020

Re-evaluation Date: November 2024

Product Name: Extruded Aluminum Slat Roll-Up Shutters and Foam-Filled Aluminum Roll-Up Shutters

Manufacturer: Rollac Shutter of Texas, Inc.
5331 Orange Street
Pearland, TX 77581
(800) 880-0922

General Description:

The extruded aluminum roll-up shutters specified in this product evaluation report are permanently mounted impact protective systems. All aluminum extrusions are 6063-T6 aluminum alloy unless otherwise noted on the drawings. The following slat types are included:

RLL-4 Slat (Type 1 Slat): This slat is produced from 6063-T5 aluminum alloy. This aluminum slat has a total width of 2.843", a maximum depth of 0.550", and a typical wall thickness of 0.047". This slat has slotted vents located on the hook of the slat that are 1/8" x 25/32" and are located 1-3/4" on center.

RLL-3 Slat (Type 2 Slat): This slat is produced from 6063-T5 aluminum alloy. This aluminum slat has a total width of 1.912", a maximum depth of 0.390", and a typical wall thickness of 0.055". This slat has slotted vents located on the hook of the slat that are 1/8" x 25/32" and are located 1-3/4" on center.

A-200-H Slat (Type 3 Slat): This slat is produced from aluminum alloy 3005-H48 sheet metal and is injected with a foam plastic core. This foam plastic core is produced from two components mixed in 100/100 parts by weight Elastopor P12041 R (1.06 specific gravity) Resin and Elastopor P1001 U (1.22 specific gravity) Isocyanate. This aluminum slat has a total width of 2.598", a maximum depth of 0.531", and a typical wall thickness of 0.019". This slat has slotted vents located on the hook of the slat that are 1/8" x 25/32" and are located 1-9/16" on center.

A-150-H Slat (Type 4 Slat): This slat is produced from aluminum alloy 3005-H48 sheet metal and is injected with a foam plastic core. This foam plastic core is produced from two components mixed in 100/100 parts by weight Elastopor P12041 R (1.06 specific gravity) Resin and Elastopor P1001 U (1.22 specific gravity) Isocyanate. This aluminum slat has a total width of 1.890", a maximum depth of .342", and a typical wall thickness of 0.017". This slat has slotted vents located on the hook of the slat that are 1/16" x 19/32" and are located 1-1/4" on center.

Shutters may be constructed with storm bars, with mullions, or with storm bars and mullions to increase the overall width of the shutter. The shutters may be wall mounted, side wall mounted, built-out, and mullion mounted. The shutters must be installed in accordance with design drawing referenced in this evaluation report.

Limitations:

Design Drawings: The roll-up shutters are installed in accordance with Rollac Shutters of Texas, Inc; Drawing No. 20-042; Sheets 1 through 13 of 13; Revision 1, dated March 17, 2020; with each sheet signed and sealed by Walter A. Tillit Jr., P.E. on March 19, 2020. The stated drawings will be referred to as approved drawings in this report. A copy of the approved drawings shall be available at the job site.

Roll-up Shutter Configurations: The roll-up shutters may be installed as:

- Single Units (storm bars not required)
- Multiple Units (storm bars required)
- Consecutive Single Units (mullion required, storm bars not required)
- Consecutive Multiple Units (mullions and storm bard required)

Mounting Conditions: The roll-up shutters may be wall mounted, side wall mounted, built-out, and mullion mounted. Refer to the approved drawings for specific mounting conditions.

Wall Construction: The roll-up shutters may be mounted to the following types of wall framing:

- Cast-in-place concrete (minimum 3,192 psi)
- Grout-filled concrete masonry units (CMU), C-90
- Wood (minimum Southern Pine; s.g.=0.55)

Allowable Design Pressure: The allowable design pressure is a function of slat type, slat span, shutter configuration, storm bars, headers, mullions, and anchors. Refer to the approved drawings for the allowable design pressure.

Maximum Span: The maximum allowable slat span is as follows:

Type 1 Slat RLL-4 Slat	Type 2 Slat RLL-3 Slat	Type 3 Slat A-200-H Slat	Type 4 Slat ¹ A-150-H Slat
7'-8"	5'-11"	6'-0"	4'-5"

Note¹: Type 4 slat must only be installed above 30' elevation of building measured at the bottom of the shutter.

Refer to the approved drawings for specific slat spans.

Maximum Height: The maximum allowable height for Single Units is 21'-0". The maximum allowable height for all other assemblies is a function of mullion span and storm bar span. Refer to the approved drawings for specific allowable heights.

Minimum Separation from Glass: The shutter must be separated from the glass by the separation schedule in the approved drawings on sheet 10 of 19 for concrete and CMU installations, and sheet 18 of 19 for wood installations,

Product Identification: The roll-up shutter assemblies have a permanently mounted label that indicates the manufacturer (Rollac Shutter of Texas, Inc); the name of the product (Series RLL-55-X Slat End Retention); the missile level (Missile Level D); and the test standards: ASTM E 330-14, ASTM E 1886-13a, and ASTM E 1996-14a.

Impact Resistance: This shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The shutter assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

Installation:

General Installation Requirements: All shutters must be installed in accordance with the approved drawings. All assemblies must adhere to the limitations section of this evaluation.

Anchorage: The shutters must be anchored to the structure in accordance with the approved drawings.

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.